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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,255	01/21/2004	Kia Silverbrook	MPA16US	1570
24011 7590 11/07/2007 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER MARTIN, LAURA E	
			ART UNIT 2853	PAPER NUMBER
			MAIL DATE 11/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

717

Office Action Summary

Application No.

10/760,255

Applicant(s)

SILVERBROOK ET AL.

Examiner

Laura E. Martin

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on *** has been entered.

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/29/07 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Silverbrook et al. (US 6439908) in view of Silverbrook (US 6443555).

Silverbrook et al. discloses:

As per claim 1, Silverbrook et al. teaches a printhead assembly comprising: at least one printhead module (figure 2, element 10) comprising at least two printhead integrated circuits (figure 2, element 18), each of which has nozzles (figure 3, element 42) formed therein for delivering printing fluid onto the surface of print media (column 3, lines 45-47), a support member (figure 8, elements 28 and 32 and column 2, lines 18-20) on which at least two printhead integrated circuits are fixedly mounted (column 4, lines 40-45 and lines 53-55; and figure 5, element 42) – the printhead integrated circuits are fixedly mounted via element 26), the support member being configured for supporting and carrying the printing fluid for the at least two printhead integrated circuits (figure 2, element 18), and an electrical connector (column 3, lines 64-65) for connecting electrical signals to at least two printhead integrated circuits; drive electronics incorporating a plurality of controllers which is connected to at least one of the at least two printhead integrated circuits (figure 8 – controllers on each print chip, which makes up the printhead) via the electrical connector for controlling the printing operation of at least one of the at least two printhead integrated circuits (column 3, column 59-65); and a casing (figure 2, element 14).

As per claim 2, Silverbrook et al. teaches a printhead assembly wherein the drive electronics (figure 3, element 18) is provided on at least one printhead circuit board

(figure 8, element 48) which is supported by a support frame (figure 7, element 26 and 28) of the casing.

As per claim 3, Silverbrook et al. teaches a printhead assembly wherein the at least one printed circuit board (figure 8, element 48) carries at least one connection port (figure 7, element 54) for connecting with the electrical connector (column 4, lines 6-9).

As per claim 4, Silverbrook et al. teaches a printhead assembly wherein the at least one connection port is aligned with the electrical connector (column 4, lines 9-12).

As per claim 5, Silverbrook et al. teaches a printhead assembly wherein the at least one printhead module (figure 2, element 12) is formed as a unitary arrangement of the at least two printhead integrated circuits (figure 4, element 18), the support member, the electrical connector (column 4, lines 6-9) and at least one fluid distribution member (figure 7, element 30) mounting the at least two printhead integrated circuits to the support member, and the support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures extending through a wall of the support member arranged so as to direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (column 4, lines 41-44).

Silverbrook et al. does not disclose:

As per claim 1: drive electronics for receiving data signals related to a print job for the printhead assembly, the drive electronics incorporating a plurality of controllers for the or each printhead module respectively such that each of the controllers process

the data signals into print data for the at least one of the at least two printhead integrated circuits respectively and transmitting the print data to the at least one printhead integrated circuit via the electrical connector using a device addressing protocol for controlling the printing operation of the at least one of the tow printhead integrated circuits, and a casing in which the at least one printhead module and drive electronics are removably mounted.

Silverbrook discloses:

As per claim 1: drive electronics for receiving data signals related to a print job for the printhead assembly, the drive electronics incorporating a plurality of controllers for the or each printhead module respectively such that each of the controllers process the data signals into print data for the at least one of the at least two printhead integrated circuits respectively and transmitting the print data to the at least one printhead integrated circuit via the electrical connector using a device addressing protocol (protocol not defined, therefore it could be anything. It would have been obvious to one of ordinary skill in the art at the time of the invention to use some sort of addressing protocol when transmitting print data to the print chips) for controlling the printing operation of the at least one of the two printhead integrated circuits (column 6, lines 45-63 – there is a PCB for each memjet chip, which makes up a printhead), and a casing in which the at least one printhead module and drive electronics are removably mounted (figure 9, elements 6, 65 and 66; column 5, lines 49-56; and column 7, lines 24-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly taught by Silverbrook et al. with the disclosure of Silverbrook in order to create a higher quality printhead assembly.

Response to Arguments

Applicant's arguments filed 10/16/07 have been fully considered but they are not persuasive.

Applicant argues that "the controllers are micro-processors that send the fire signals to the nozzles on the printhead IC(s) which it controls" and "the controllers and their relevant IC(s) are separate devices that the print data is transmitted using a device addressing protocol"; however, neither of these statements are written in the claims. Currently, the way the claims are written, the plurality of drive electronics is for the printhead; both of the references incorporate multiple controls on the printhead.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

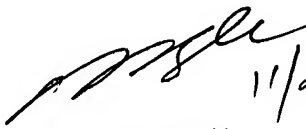
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura E. Martin


11/2/07
MANISH S. SHAH
PRIMARY EXAMINER